

Case 287 : Narrative

Case Vehicle (A): 1999 Ford
Type: F-150, 4 x 4, 4-door pickup
Driver: 25-year-old male
CDC: 12-RBES-1, 12-FDAW-7

SITUATION

[1](#) It was a cloudy night but the unlighted road was dry and free of defects. [2](#) Case vehicle (A) was traveling east at an unknown speed on a two-lane asphalt road. The driver apparently fell asleep and case vehicle (A) went across the westbound lane, and exited the north edge of the road where there was roadside utility work underway (installation of underground water pipes). The right-rear side of case vehicle (A) sideswiped a mailbox, and case vehicle (A) continued on, until it struck a pile of large PVC water pipes [3](#) with its front. The driver was transported by helicopter to a level-one trauma facility and was hospitalized for fourteen days. Case vehicle (A) was towed due to damage. The driver of case vehicle (A) had been drinking, and a blood alcohol test revealed a level of .16 percent.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

[4](#) Damage to case vehicle (A) was severe. [5](#) Direct damage from the frontal impact was across the entire frontal plane and included the frontal portion of the roof, but the primary damage was to the left front and down the left side of the vehicle. The maximum crush at the level of the bumper was 101 cm to the lower portion of the left-front radiator support. [6](#) The maximum crush above the bumper was 109 cm to the left front at the level of the upper radiator support.

Using the WinSMASH accident-reconstruction program and [7 8 9](#) crush profiles measured at the level of the bumper and [10 11 12 13](#) the upper radiator support, the following impact severity was calculated for the frontal impact:

		Calculated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	EBS	67 (42)	-67 (-42)	0 (0)

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

[14](#) The frontal impact with the PVC pipes broke off the left portion of the metal front bumper, crushed the left portion of the engine compartment rearward, exposing the left frame rail, and disintegrated the left half of the grille and left headlight assembly. [15](#) The hood latch had released and both hood hinges were damaged and had separated, causing the hood to be completely torn off. The windshield was cracked, most of the bond was separated, and there were several tears in the interlayer plastic from direct contact with the PVC pipes. The windshield header and left-roof siderail were buckled rearward by direct damage. [16](#) The left-front fender, the upper and lower sections of the left A-pillar, and the forward portion of the left-rear door were deformed. Rescue personnel cut the upper sections of the left A- and [17](#) C-pillars, as well as [18](#) the upper portion of the left-rear door window frame. [19](#) The left-front door was jammed closed and had been removed by rescue personnel. Both left-side windows were broken out. [20](#) The left-front tire was completely deflated and separated from the damaged rim, and the left wheelbase was reduced 38 cm.

[21](#) The direct damage from the sideswipe with the mailbox began at above the center of the right-rear wheel well and extended 112 cm rearward to the right-rear taillight lens. The maximum right-side crush was 6 cm to the right-rear cargo panel. Both right-side doors

remained closed and operational. [22](#) The right-front door window was broken out, and [23](#) the right wheelbase was increased 9 cm.

[24](#) There was no damage to the rear of the vehicle [25](#) but the backlight was broken out.

Interior

This vehicle was equipped with steering-wheel and passenger frontal-impact airbags, and [26](#) [27](#) [28](#) both deployed in the frontal impact. [29](#) The left-rear half of the steering-wheel airbag was torn open and [30](#) a small portion of the fabric had melted onto the airbag module. There was no damage to the passenger airbag. [31](#) [32](#) The upper flap/cover of the steering-wheel airbag module was twisted and bent, and was wedged between the steering-wheel rim and upper instrument panel. [33](#) There was no damage to the lower flap/cover. [34](#) The passenger airbag module flap/cover was slightly deformed. [35](#) [36](#) The upper-left portion of the steering-wheel rim was broken and the spokes were deformed. [37](#) The steering column was deflected up and to the right. [38](#) [39](#) The roof structure, the headliner, and the left-roof siderail were buckled downward. [40](#) The upper section of the left A-pillar was bowed, and the lower section of the left A-pillar was slightly buckled. [41](#) The toepan and cowl were crushed rearward, causing the floor on the left side of the vehicle to buckle upward. [42](#) The brake and gas pedals were pushed rearward and deflected to the right. The plastic knee bolster cover was cracked, broken, and displaced rearward. [43](#) [44](#) The plastic covering of the left and center portions of the instrument panel were partially separated from the cluster. The instruments, control knobs, upper vent outlets, radio, ashtray, and heater ducts were broken and/or displaced rearward. [45](#) The glove-box area was slightly displaced rearward. [46](#) The left-rear door panel, door hardware, and door armrest were knocked off, and the left C-pillar plastic was knocked loose. [47](#) The rear portion of the left-rear seat cushion had been dislodged. The following intrusions were noted and measured.

Location	Component	Distance (cm)	Direction
left front 48	toe pan - left	65	to rear
49	upper and mid instrument panel	60	to rear
50	knee bolster - center at metal bar	56	to rear
51	knee bolster - left	55	to rear
52	steering column	42	to rear
53	windshield header	40	to rear
54	knee bolster - right	39	to rear
55	knee bolster - center at plastic cover	39	to rear
56	roof	31	down
	roof siderail	17	down
center front	instrument panel	37	to rear
right front 57	glove - box area	12	to rear

OCCUPANT KINEMATICS AND INJURIES

[58](#) The 5-ft, 11-in, 215-lb, 25-year-old male driver was **not** wearing the three-point belt, [59](#) but the steering-wheel airbag deployed. [60](#) There were no webbing imprints on the plastic D-ring and the driver seat was in a mid-track position.

During the impact, the driver moved forward relative to the vehicle interior and into the airbag. He sustained a laceration to his chin and loss of consciousness for more than one-hour, probably due to head/face contact with the windshield header and windshield, [61](#) as evidenced by a scuff mark on the windshield header, or possibly due to contact with the

PVC pipes which probably penetrated the cab through the windshield. He sustained unspecified fractures to thoracic vertebrae 5, 6, 7 and 8, from an unknown source. He sustained lacerations to the liver and spleen, probably due to loading by the steering-wheel rim through the airbag. He sustained an open displaced fracture to the mid shaft of the left femur due to knee contact with the knee bolster, as evidenced by [62](#) [63](#) [64](#) the dented and broken plastic knee-bolster cover. He sustained an open displaced fracture to the mid shaft of the left ulna, and degloving of the skin from his wrist to the middle of the left forearm, probably due to contact with the penetrating PVC pipe, or possibly due to contact with mid-instrument panel or windshield.

The following table and attached drawing [65](#) summarizes the injuries sustained by the driver of case vehicle (A).

Occupant: Driver		Age: 25 years		Gender: Male	
Restraints: 3-point belt <i>not</i> worn; frontal-impact airbag deployed		Stature: 180 cm (5 ft, 11 in)		Mass: 98 kg (215 lb)	
Injury Description		A.I.S.	Injury Source		
—		—	Definite	Probable	Possible
Unconscious over one hour		3	—	Windshield header, windshield	Penetrating object (PVC pipe)
Laceration, chin		1	—	Windshield header, windshield	Penetrating object (PVC pipe)
Laceration, liver		2	—	Steering-wheel rim	—
Laceration, spleen		2	—	Steering-wheel rim	—
Unspecified fractures, thoracic vertebrae 5, 6, 7 and 8		2	—	—	Unknown
Open displaced fracture, mid shaft of left ulna		3	—	Penetrating object (PVC pipe)	Mid instrument panel, windshield
Degloving of left forearm skin, from wrist to mid forearm		2	—	Penetrating object (PVC pipe)	Mid instrument panel, windshield
Open displaced fracture, mid shaft of left femur		3	Knee bolster	—	—
Maximum A.I.S. Level		3	—	—	—
Injury Severity Score		22	—	—	—

CASE NO: 28104

CASE VEHICLE: 1996 Ford

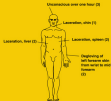
TYPE: F452, 4 x 4, 4 door pickup

OCCUPANT: Driver- 24-year-old male

STATURE: 180 cm (5' 9, 11 in) MASS: 88 kg (211 lb)

RESTRAINTS: 3-point belt not worn, airbag deployed

SEVERITY: ISS1--3 ISS2--20



Case No.: 287-01	Light Conditions: Dark, overcast
Case Veh. (s): 1988 Ford	Weather: Cloudy
Type: F-150, station is a pickup	Road Surface: Dry
Driver: 26-year-old male	Road Construction: Asphalt

Case No.: 287-01	Light Conditions: Dark, overcast
Case Veh. (s): 1988 Ford	Weather: Cloudy
Type: F-16, 1st time in a flipover	Road Surface: Dry
Driver: 26-year-old male	Road Construction: Asphalt

Case No.: 287-01	Light Conditions: Dark, overcast
Case Veh. (s): 1988 Ford	Weather: Cloudy
Type: F-150, station is a pickup	Road Surface: Dry
Driver: 26-year-old male	Road Construction: Asphalt

Case No.: 287-01	Light Conditions: Dark, overcast
Case Veh. (s): 1988 Ford	Weather: Cloudy
Type: F-150, station is a pickup	Road Surface: Dry
Driver: 26-year-old male	Road Construction: Asphalt

Case No.: 287-01	Light Conditions: Dark, overcast
Case Veh. (s): 1988 Ford	Weather: Cloudy
Type: F-150, station is a pickup	Road Surface: Dry
Driver: 26-year-old male	Road Construction: Asphalt

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Case Veh. (s): 1988 Ford	Weather: Cloudy
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Vehicle Report

General

Conditions

Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	2	Rural	more
V207 — Limited Access Highway	0	No	more
V208 — Road Total Lanes	2	2 lanes	more
V209 — Intersecting Road Total Lanes	8	Not applicable	more
V210 — Road Surface Type	1	Asphalt	more
V211 — Road Defects	0	No	more
V212 — Construction Zone	0	No	more
V213 — Road Alignment Vertical Plane	1	Level	more
V214 — Road Alignment Horizontal Plane	1	Straight	more
V215 — Surface Covering	10	Dry	more
V216 — Visibility Limitation	0	None	more
V217 — Visibility Obstruction	0	None	more
V218 — Speed Limit	6	86-90 km/h .. 55 mph	more
V219 — Precipitation Type	0	None	more
V220 — Precipitation Rate	8	Not applicable	more
V221 — Temperature	9	Unknown	more
V222 — Crosswind	9	Unknown	more
V223 — Light Conditions	5	Dark, unlighted	more
V224 — Mechanical Malfunction Mention	0	No	more
V225 — Case Vehicle and Object	1	Yes	more
V226 — Case Vehicle Rollover	0	No	more

V227 — Case Vehicle Ran Off Roadway	1	Yes	more
V228 — Moving Case Vehicle/Contacted Moving Vehicle	0	No	more
V229 — Case Vehicle/Contacted Stopped Vehicle	0	No	more
V230 — Stopped Case Vehicle/Contactd Vehicle	0	No	more
V231 — Total Vehicles Hit By Case Vehicle	0	0 vehicles	more
V232 — Any Fire in Crash	0	No	more
V233 — Max Police Severity-PAR	3	A - Incapacitating Injury	more
V234 — Driver Alcohol Involvement	1	Had been drinking	more
V235 — Driver Alcohol BAC	16	—	—
V236 — Driver Impairment Mention	0	No	more
V237 — Driven/Towed From Scene	2	Towed Due to Damage	more

Other Vehicle

Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN			more
V303 — Other Vehicle Manufacturer	998	No Other Vehicle	more
V304 — Other Vehicle Body Code	98	No Other Vehicle	more
V305 — Other Vehicle Make/Model	0000	No other vehicle	more
V306 — Other Vehicle Model Year	9999	No other vehicle	more
V307 — Other Vehicle Mass	999998	No other vehicle	more
V308 — Other Vehicle Number	8	No other vehicle	more
V309 — Other Vehicle Number of Occupants	98	No other vehicle	more
V310 — Other Vehicle Traveling Speed	999	Unknown	more
V311 — Highest Police Injury Severity	8	Unoccupied Vehicle	more
V312 — Other Vehicle Type	98	No Other Vehicle	more
V313 — Other Vehicle Wheelbase (cm)	998	No other vehicle	more
V314 — Average Track Width	999	Unknown	more
V315 — Overall Length	999	Unknown	more
V316 — Overall Width (OAW)	999	Unknown	more
V317 — Front Overhang (FOH)	999	Unknown	more
V318 — Rear Overhang (ROH)	999	Unknown	more
V319 — Undeformed End Width (UEW)	999	Unknown	more
V320 — Engine Displacement	9.9 l	—	—
V321 — Engine: Number of Cylinders	99	Unknown	more
V322 — Direct Damage Length (DDL)	999	Unknown	more
V323 — Front-End Overlap % (FEO)	99	Missing or Not applicable	more
V324 — Vehicle Overlap % (VOL)	99	Missing or Not applicable	more

Case Vehicle

General

Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	1FTRX18L9XNB	—	—
V402 — Manufacturer/Body Code	12112	—	—
V403 — Vehicle Manufacturer	121	Ford	more
V404 — Vehicle Body Code	12	—	—
V405 — Make/Model Code	3108	Flareside, Styleside F150	more
V406 — Model Year	1999	—	—
V407 — Vehicle Mass	002137 kg	—	—
V408 — Odometer Reading	888888	—	—
V409 — Number of Occupants	01	—	—
V410 — Traveling Speed	999	Unknown	more
V411 — Body Type	33	Pickup truck (large)	more
V412 — Stolen Vehicle	8	Not currently collected	more
V413 — Body Structure	1	Body and frame	more
V414 — Transmission Type	1	Automatic	more
V415 — Transmission Lever Location	3	Column	more
V416 — Steering	1	Power	more
V417 — Brakes	1	Power	more
V418 — Brake Type	2	Disc - front wheels	more
V419 — Brake Anti-lock Device	1	Two-wheel	more
V420 — Air Conditioning in Vehicle	8	Not currently collected	more
V421 — Drive Type	3	Four wheel	more
V422 — Dual Rear Wheels	0	No	more
V423 — Original Restraint System Type	3	Airbag	more

V424 — Equipped With Roll Bar	0	No	more
V425 — Roof Type	1	Solid	more
V426 — Wheelbase	353 cm	—	—
V427 — Anti-lacerative Glass	0	None	more
V428 — Average Track Width	165 cm	—	—
V429 — Overall Length	573 cm	—	—
V430 — Overall Width (OAW)	202 cm	—	—
V431 — Front Overhang	098 cm	—	—
V432 — Rear Overhang	110 cm	—	—
V433 — Undeformed End Width (UEW)	180 cm	—	—
V434 — Engine Displacement	5.4 <i>l</i>	—	—
V435 — Engine: Number of Cylinders	08	—	—
V436 — Direct Damage Length (DDL)	180 cm	—	—
V437 — Front End Overlap % (FEO)	98	98% or more	more
V438 — Vehicle Overlap % (VOL)	98	98% or more	more

Case Vehicle

Damage

Description

Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	109 cm	—	—
V502 — Maximum Crush - Right Side	006 cm	—	—
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	more
V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	more
V505 — Maximum Crush - Roof	000 cm	No crush (or less than 1 cm.)	more
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	more
V507 — Are Events In Chronological Order	1	Yes	more
V508 — Event 1 Impact Location	2	Shoulder/Median/Gore	more
V509 — Event 1 Impact Configuration	47	RIGHT of case veh - object	more
V510 — Event 1 Object/Vehicle Contacted	85	Small post/tree, rural mailbox, delineator	more
V511 — Event 2 Impact Location	2	Shoulder/Median/Gore	more
V512 — Event 2 Impact Configuration	17	FRONT of case veh - object	more
V513 — Event 2 Object/Vehicle Contacted	98	Other	more
V514 — Event 3 Impact Location	8	No 3rd event	more
V515 — Event 3 Impact Configuration	88	No 3rd event	more
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V517 — Event 4 Impact Location	8	No 4th event	more
V518 — Event 4 Impact Configuration	88	No 4th event	more
V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V520 — Event 5 Impact Location	8	No 5th event	more
V521 — Event 5 Impact Configuration	88	No 5th event	more
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V523 — Event 6 Impact Location	8	No 6th event	more

V524 — Event 6 Impact Configuration	88	No 6th event	more
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V526 — Event 7 Impact On Road	8	No 7th event	more
V527 — Event 7 Impact Configuration	88	No 7th event	more
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V529 — Primary CDC Case Vehicle -event Number	2	Event 2	more
V530 — Primary CDC Case Vehicle - impact speed	999	Unknown	more
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	more
V532 — Primary CDC Case Vehicle -crush	109	—	—
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	more
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	more
V535 — Primary CDC Case Vehicle letter 2 #1	04	D - Distributed (Side or End)	more
V536 — Primary CDC Case Vehicle letter 3 #1	01	A - All	more
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	more
V538 — Primary CDC Case Vehicle Extent #1	07	Extent 7	more
V539 — Primary CDC Case Vehicle -CDC #1	12FDAW7	—	—
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V546 — Primary CDC Case Vehicle -CDC #2	9800000	—	—
V547 — Primary CDC Contacted Vehicle - Impact Speed	998	Not Applicable	more
V548 — Primary CDC Contacted Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V549 — Primary CDC Contacted Vehicle - crush	998	Not Applicable	more
V550 — Primary CDC Contacted Vehicle - clock #1	98	Not Applicable	more

V551 — Primary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V552 — Primary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V553 — Primary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V554 — Primary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V555 — Primary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	more
V556 — Primary CDC Contacted Vehicle -CDC #1	9800000	—	—
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V563 — Primary CDC Contacted Vehicle -CDC #2	9800000	—	—
V564 — Secondary CDC Case Vehicle - Event No	1	Event 1	more
V565 — Secondary CDC Case Vehicle - Impact Speed	999	Unknown	more
V566 — Secondary CDC Case Vehicle - Estimated By	1	—	—
V567 — Secondary CDC Case Vehicle -crush	006	—	—
V568 — Secondary CDC Case Vehicle -clock #1	12	12 o'clock	more
V569 — Secondary CDC Case Vehicle letter 1 #1	18	R - Right Side	more
V570 — Secondary CDC Case Vehicle letter 2 #1	02	B - Side Rear (Left or Right)	more
V571 — Secondary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	more
V572 — Secondary CDC Case Vehicle letter 4	19	S - Sideswipe	more

#1			
V573 — Secondary CDC Case Vehicle Extent #1	01	Extent 1	more
V574 — Secondary CDC Case Vehicle -CDC #1	12RBES1	—	—
V576 — Secondary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	—	—
V582 — Secondary CDC Contacted Vehicle - Impact Speed	998	Not Applicable	more
V583 — Secondary CDC Contacted Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V584 — Secondary CDC Contacted Vehicle - crush	998	Not Applicable	more
V585 — Secondary CDC Contacted Vehicle - clock #1	98	Not Applicable	more
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V589 — Secondary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	more
V591 — Secondary CDC Contacted Vehicle - CDC #1	9800000	—	—
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V594 — Secondary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	more

V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V598 — Secondary CDC Contacted Vehicle - CDC #2	9800000	—	—

Crash Severity

Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	—	—
V602 — Primary Impact Total Delta-V	999	Unknown	more
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	9999	—	—
V604 — Primary Case Vehicle Reconstructed Lateral Delta-V	9999	—	—
V605 — Primary Case Vehicle Reconstructed Crush Energy	9999	—	—
V606 — Primary Impact Case Vehicle -reconstruction	09	Yielding fixed object	more
V607 — Primary Case Vehicle Reconstruction Mode	5	Not reconstructed	more
V608 — Primary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	more
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta-V	8888	—	—
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	8888	—	—
V612 — Case Vehicle Secondary Impact Number	8	—	—
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	888	N/A	more
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V615 — Secondary Case Vehicle Reconstructed Lateral Delta-V	8888	—	—
V616 — Secondary Case Vehicle Reconstructed Crush Energy	8888	—	—
V617 — Secondary Case Vehicle Reconstruction Note	88	—	—
V618 — Secondary Case Vehicle Reconstruction Mode	8	Not applicable	more
V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	more

V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta-V	8888	—	—
V622 — Secondary Contacted Vehicle Reconstructed Crush Energy	8888	—	—
V623 — Case Vehicle Primary Impact Number	1	—	—
V624 — Primary Case Vehicle Reconstructed Total EBS	067 kph	—	—
V625 — Primary Case Vehicle Reconstructed Longitudinal EBS	-067 kph	—	—
V626 — Primary Case Vehicle Reconstructed Lateral EBS	0000 kph	—	—
V627 — Primary Case Vehicle Reconstructed Crush Energy	0389 kJ	—	—
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	more
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V630 — Primary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	8888	—	—
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	8888	—	—
V633 — Primary Contacted Vehicle Reconstruction Crush Energy	8888	—	—
V634 — Case Vehicle Secondary Impact Number	8	Not applicable	more
V635 — Secondary Case Vehicle Reconstruction Total EBS	888	N/A	more
V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS	8888	—	—
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	8888	—	—
V638 — Secondary Case Vehicle Reconstruction Crush Energy	8888	—	—
V639 — Secondary Case Vehicle Reconstruction Note	88	—	—
V640 — Secondary Case Vehicle Reconstruction	8	Not applicable	more

Mode			
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS	8888	—	—
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	—	—
V644 — Secondary Contacted Vehicle Reconstruction Crush Energy	8888	—	—
V645 — Case Vehicle Reconstructed Impact Number	2	—	—
V646 — Case Vehicle Impact 1 Plane	5	Other	more
V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	180 cm	—	—
V648 — Case Vehicle Impact 1 Max Crush	109 cm	—	—
V649 — Case Vehicle Impact 1 Field-L	110 cm	—	—
V650 — Case Vehicle Impact 1 C1	109 cm	—	—
V651 — Case Vehicle Impact 1 C2	097 cm	—	—
V652 — Case Vehicle Impact 1 C3	089 cm	—	—
V653 — Case Vehicle Impact 1 C4	046 cm	—	—
V654 — Case Vehicle Impact 1 C5	021 cm	—	—
V655 — Case Vehicle Impact 1 C6	013 cm	—	—
V656 — Case Vehicle Impact 1 +/- D	0000 cm	—	—
V657 — Case Vehicle Reconstructed Impact Number	1	—	—
V658 — Case Vehicle Impact 2 Plane	4	Above sill	more
V659 — Case Vehicle Impact 2 Direct Damage Length [DDL]	112 cm	—	—
V660 — Case Vehicle Impact 2 Max Crush	006 cm	—	—
V661 — Case Vehicle Impact 2 Field-L	112 cm	—	—
V662 — Case Vehicle Impact 2 C1	999	Unknown	more
V663 — Case Vehicle Impact 2 C2	999	Unknown	more
V664 — Case Vehicle Impact 2 C3	999	Unknown	more
V665 — Case Vehicle Impact 2 C4	999	Unknown	more
V666 — Case Vehicle Impact 2 C5	999	Unknown	more

V667 — Case Vehicle Impact 2 C6	999	Unknown	more
V668 — Case Vehicle Impact 2 +/- D	0999 cm	—	—
V669 — Other Vehicle Reconstructed Impact Number	9	Unknown	more
V670 — Other Vehicle Impact 1 Plane	9	Unknown	more
V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	999	Unknown	more
V672 — Other Vehicle Impact 1 Max Crush	999	Unknown	more
V673 — Other Vehicle Impact 1 Field-L	999	Unknown	more
V674 — Other Vehicle Impact 1 C1	999	Unknown	more
V675 — Other Vehicle Impact 1 C2	999	Unknown	more
V676 — Other Vehicle Impact 1 C3	999	Unknown	more
V677 — Other Vehicle Impact 1 C4	999	Unknown	more
V678 — Other Vehicle Impact 1 C5	999	Unknown	more
V679 — Other Vehicle Impact 1 C6	999	Unknown	more
V680 — Other Vehicle Impact 1 +/- D	9999	—	—
V681 — Other Vehicle Reconstructed Impact Number	9	Unknown	more
V682 — Other Vehicle Impact 2 Plane	9	Unknown	more
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	999	Unknown	more
V684 — Other Vehicle Impact 2 Max Crush	999	Unknown	more
V685 — Other Vehicle Impact 2 Field-L	999	Unknown	more
V686 — Other Vehicle Impact 2 C1	999	Unknown	more
V687 — Other Vehicle Impact 2 C2	999	Unknown	more
V688 — Other Vehicle Impact 2 C3	999	Unknown	more
V689 — Other Vehicle Impact 2 C4	999	Unknown	more
V690 — Other Vehicle Impact 2 C5	999	Unknown	more
V691 — Other Vehicle Impact 2 C6	999	Unknown	more
V692 — Other Vehicle Impact 2 +/- D	9999	—	—

Case Vehicle

Tires & Rims

Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	1	Yes	more
V702 — Right Front Wheel Damaged	0	No	more
V703 — Right Rear Wheel Damaged	0	No	more
V704 — Left Rear Wheel Damaged	0	No	more
V705 — Left Front Tire Tread Type	4	All Weather	more
V706 — Right Front Tire Tread Type	4	All Weather	more
V707 — Right Rear Tire Tread Type	4	All Weather	more
V708 — Left Rear Tire Tread Type	4	All Weather	more
V709 — Left Front Carcass Construction	3	Radial	more
V710 — Right Front Carcass Construction	3	Radial	more
V711 — Right Rear Carcass Construction	3	Radial	more
V712 — Left Rear Carcass Construction	3	Radial	more
V717 — Left Front Tire Size	P26570R16	—	—
V718 — Right Front Tire Size	P26570R16	—	—
V719 — Right Rear Tire Size	P26570R16	—	—
V720 — Left Rear Tire Size	P26570R16	—	—

Case Vehicle

Fuel, Tank, Fire

Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	more
V802 — Main Tank Location	322	Within frame/centered laterally - within vertically	more
V803 — Main Filler Cap Location	313	Left of frame laterally - above vertically	more
V804 — Main Tank Material	1	Steel	more
V805 — Aux Tank Type	8	Not applicable (not equipped)	more
V806 — Aux Tank Location	888	Not applicable (not equipped)	more
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	more
V808 — Aux Tank Material	8	Not applicable	more
V901 — Fuel Leakage From Crash	0	No	more
V1001 — Fire In Or On Case Vehicle	0	No	more

Case Vehicle

Exterior

Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	1	Yes	more
V1102 — Hood Latch Damaged	1	Yes	more
V1103 — Hood Latch Jammed	9	Unknown	more
V1104 — Left Hood Hinge Damaged	1	Yes	more
V1105 — Left Hood Hinge Separated	1	Yes	more
V1106 — Right Hood Hinge Damaged	1	Yes	more
V1107 — Right Hood Hinge Separated	1	Yes	more
V1108 — Hood Remained On Vehicle	0	No	more
V1109 — Rear Hood Edge Elevated	9	Unknown	more
V1110 — Edge Contacted Windshield	9	Unknown	more
V1111 — Edge Penetrated Windshield	9	Unknown	more
V1112 — Hood Latch Location	1	Front of Vehicle	more
V1113 — Eng/Transmissn Mount Separation	0	No	more
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	more
V1115 — Steerng Column Coupling Damaged	9	Unknown	more
V1116 — Steerng Column Coupling Separated	9	Unknown	more
V1117 — Eng Comp Telescopng Unit	88	Not collected	more
V1118 — Comp Orig/Telescopd Diff	888	Not collected	more
V1119 — Left Side Body Mount Separation	0	No	more
V1120 — Upper Left A-pillar Separation	4	No separation, but damaged	more
V1121 — Lower Left A-pillar Separation	4	No separation, but damaged	more
V1122 — Upper Left B-pillar Separation	8	Not applicable (not equipped)	more
V1123 — Lower Left B-pillar Separation	8	Not applicable (not equipped)	more
V1124 — Upper Left C-pillar Separation	4	No separation, but damaged	more

V1125 — Lower Left C-pillar Separation	4	No separation, but damaged	more
V1126 — Upper Left D-pillar Separation	8	Not applicable (not equipped)	more
V1127 — Lower Left D-pillar Separation	8	Not applicable (not equipped)	more
V1128 — Left Front Door Opening Cause	0	Door did not open	more
V1129 — Left Rear Door Opening Cause	0	Door did not open	more
V1130 — Left Front Door Jammed Closed	1	Yes	more
V1131 — Left Rear Door Jammed Closed	1	Yes	more
V1132 — Rear Door Type	0	No door (includes pickups)	more
V1133 — Rear Door Opening Cause	8	Not applicable (no rear door)	more
V1134 — Rear Door Jammed Closed	8	Not applicable (no rear door)	more
V1135 — Luggage Partition Damagd	8	Not applicable	more
V1136 — Spare Tire Status	8	Not collected	more
V1137 — Trailer Hitch Type	0	No hitch	more
V1138 — Trailer Type	0	No trailer	more
V1139 — Right Side Body Mount Separation	0	No	more
V1140 — Upper Right A-pillar Separation	4	No separation, but damaged	more
V1141 — Lower Right A-pillar Separation	0	No	more
V1142 — Upper Right B-pillar Separation	8	Not applicable (not equipped)	more
V1143 — Lower Right B-pillar Separation	8	Not applicable (not equipped)	more
V1144 — Upper Right C-pillar Separation	0	No	more
V1145 — Lower Right C-pillar Separation	0	No	more
V1146 — Upper Right D-pillar Separation	8	Not applicable (not equipped)	more
V1147 — Lower Right D-pillar Separation	8	Not applicable (not equipped)	more
V1148 — Right Front Door Opening Cause	00	Door did not open	more
V1149 — Right Rear Door Opening Cause	00	Door did not open	more
V1150 — Right Front Door Jammed Closed	0	No	more
V1151 — Right Rear Door Jammed Closed	0	No	more

V1152 — Van Rear Door Type	8	Not applicable (not a van)	more
V1153 — Windshield Cracked		Yes	more
V1154 — Windshield Broken	1	Yes	more
V1155 — Windshield Cracked or Broken by Occupant	9	Unknown	more
V1156 — Bond Separation Extent	7	Separated, amount unknown	more
V1157 — Windshield Code		—	—
V1158 — Did Sun/T Roof Open	8	Not Applicable	more

Case Vehicle

Steering

Column/Rim

Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	3	Broken	more
V1202 — Number of Steering Wheel Spokes	2	2 spokes	more
V1203 — Steering Wheel Spoke Damage	1	Deformed slightly	more
V1204 — Column Tilt Feature	1	Yes, equipped (position unknown)	more
V1205 — Column Swing-away Feature	0	Not equipped	more
V1206 — Column Telescoping Feature	0	Not equipped	more
V1207 — Wheel Energy Absorb Device	8	Not collected	more
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	more
V1209 — Column Energy Absorb Device	88	Not collected	more
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	more
V1211 — Shear Capsule Separation	888	Not collected	more
V1212 — Column Vertical Rotation	1	Upward apparent rotation	more
V1213 — Column Lateral Rotation	2	Right apparent rotation	more
V1214 — Steering Wheel Hub Damage	1	Occupant contact	more

Case Vehicle

Intrusion

Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	1	Yes	more
V1302 — Was Intrusion Catastrophic	0	No	more
V1303 — Intrusion Number 01	01	Intrusion #1	more
V1304 — Intrusion 01 Occupant Space Number	11	First row, Left seat	more
V1305 — Intrusion 01 Intruding Object	03	Toe pan	more
V1306 — Intrusion 01 Assoc Event Number	2	Event #2	more
V1307 — Intrusion 01 Max Intrusion X-axis	65 cm	—	—
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1309 — Intrusion 01 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1310 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	more
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1313 — Intrusion 01 Injury Number	00	No injury or no intrusion	more
V1314 — Intrusion Number 02	02	Intrusion #2	more
V1315 — Intrusion 02 Occupant Space Number	11	First row, Left seat	more
V1316 — Intrusion 02 Intruding Object	01	Instrument panel	more
V1317 — Intrusion 02 Assoc Event Number	2	Event #2	more
V1318 — Intrusion 02 Max Intrusion X-axis	60 cm	—	—
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1320 — Intrusion 02 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1321 — Intrusion 02 Occupant Number	01	Occupant number 1, contact	more
V1322 — Intrusion 02 Injury Number	09	Injury #9	more
V1323 — Intrusion 02 Occupant Number	01	Occupant number 1, contact	more

V1324 — Intrusion 02 Injury Number	10	Injury #10	more
V1325 — Intrusion Number 03	03	Intrusion #3	more
V1326 — Intrusion 03 Occupant Space Number	11	First row, Left seat	more
V1327 — Intrusion 03 Intruding Object	25	Other	more
V1328 — Intrusion 03 Assoc Event Number	2	Event #2	more
V1329 — Intrusion 03 Max Intrusion X-axis	56 cm	—	—
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1331 — Intrusion 03 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1332 — Intrusion 03 Occupant Number	01	Occupant number 1, contact	more
V1333 — Intrusion 03 Injury Number	11	Injury #11	more
V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1335 — Intrusion 03 Injury Number	00	No injury or no intrusion	more
V1336 — Intrusion Number 04	04	Intrusion #4	more
V1337 — Intrusion 04 Occupant Space Number	11	First row, Left seat	more
V1338 — Intrusion 04 Intruding Object	01	Instrument panel	more
V1339 — Intrusion 04 Assoc Event Number	2	Event #2	more
V1340 — Intrusion 04 Max Intrusion X-axis	55 cm	—	—
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1342 — Intrusion 04 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1343 — Intrusion 04 Occupant Number	01	Occupant number 1, contact	more
V1344 — Intrusion 04 Injury Number	11	Injury #11	more
V1345 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1346 — Intrusion 04 Injury Number	00	No injury or no intrusion	more
V1347 — Intrusion Number 05	05	Intrusion #5	more
V1348 — Intrusion 05 Occupant Space Number	11	First row, Left seat	more
V1349 — Intrusion 05 Intruding Object	05	Steering column	more
V1350 — Intrusion 05 Assoc Event Number	2	Event #2	more
V1351 — Intrusion 05 Max Intrusion X-axis	42 cm	—	—

V1352 — Intrusion 05 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1354 — Intrusion 05 Occupant Number	01	Occupant number 1, contact	more
V1355 — Intrusion 05 Injury Number	03	—	—
V1356 — Intrusion 05 Occupant Number	01	Occupant number 1, contact	more
V1357 — Intrusion 05 Injury Number	04	—	—
V1358 — Intrusion Number 06	06	Intrusion #6	more
V1359 — Intrusion 06 Occupant Space Number	11	First row, Left seat	more
V1360 — Intrusion 06 Intruding Object	07	Windshield header	more
V1361 — Intrusion 06 Assoc Event Number	2	Event #2	more
V1362 — Intrusion 06 Max Intrusion X-axis	40 cm	—	—
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1364 — Intrusion 06 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1365 — Intrusion 06 Occupant Number	01	Occupant number 1, contact	more
V1366 — Intrusion 06 Injury Number	01	Injury #1	more
V1367 — Intrusion 06 Occupant Number	01	Occupant number 1, contact	more
V1368 — Intrusion 06 Injury Number	02	Injury #2	more
V1369 — Intrusion Number 07	07	Intrusion #7	more
V1370 — Intrusion 07 Occupant Space Number	11	First row, Left seat	more
V1371 — Intrusion 07 Intruding Object	01	Instrument panel	more
V1372 — Intrusion 07 Assoc Event Number	2	Event #2	more
V1373 — Intrusion 07 Max Intrusion X-axis	39 cm	—	—
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1375 — Intrusion 07 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	more
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more

V1379 — Intrusion 07 Injury Number	00	No injury or no intrusion	more
V1380 — Intrusion Number 08	08	Intrusion #8	more
V1381 — Intrusion 08 Occupant Space Number	11	First row, Left seat	more
V1382 — Intrusion 08 Intruding Object	01	Instrument panel	more
V1383 — Intrusion 08 Assoc Event Number	2	Event #2	more
V1384 — Intrusion 08 Max Intrusion X-axis	39 cm	—	—
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	more
V1388 — Intrusion 08 Injury Number	00	No injury or no intrusion	more
V1389 — Intrusion 08 Occupant Number	00	No contact or no intrusion	more
V1390 — Intrusion 08 Injury Number	00	No injury or no intrusion	more
V1391 — Intrusion Number 09	09	Intrusion #9	more
V1392 — Intrusion 09 Occupant Space Number	11	First row, Left seat	more
V1393 — Intrusion 09 Intruding Object	15	Roof or convertible top	more
V1394 — Intrusion 09 Assoc Event Number	2	Event #2	more
V1395 — Intrusion 09 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1396 — Intrusion 09 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1397 — Intrusion 09 Max Intrusion Z-axis	31 cm	—	—
V1398 — Intrusion 09 Occupant Number	00	No contact or no intrusion	more
V1399 — Intrusion 09 Injury Number	00	No injury or no intrusion	more
V1400 — Intrusion 09 Occupant Number	00	No contact or no intrusion	more
V1401 — Intrusion 09 Injury Number	00	No injury or no intrusion	more
V1402 — Intrusion Number 10	10	Intrusion #10	more
V1403 — Intrusion 10 Occupant Space Number	11	First row, Left seat	more
V1404 — Intrusion 10 Intruding Object	14	Roof side rails	more
V1405 — Intrusion 10 Assoc Event Number	2	Event #2	more
V1406 — Intrusion 10 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more

V1407 — Intrusion 10 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1408 — Intrusion 10 Max Intrusion Z-axis	17 cm	—	—
V1409 — Intrusion 10 Occupant Number	00	No contact or no intrusion	more
V1410 — Intrusion 10 Injury Number	00	No injury or no intrusion	more
V1411 — Intrusion 10 Occupant Number	00	No contact or no intrusion	more
V1412 — Intrusion 10 Injury Number	00	No injury or no intrusion	more
V1413 — Door Intrusion Number 01	88	Not Applicable	more
V1414 — Door Intrusion Number 01 Cause	8	Not applicable	more
V1415 — Door Intrusion Number 02	88	Not Applicable	more
V1416 — Door Intrusion Number 02 Cause	8	Not applicable	more
V1417 — Door Intrusion Number 03	88	Not Applicable	more
V1418 — Door Intrusion Number 03 Cause	8	Not applicable	more
V1419 — Door Intrusion 01 Component	88	Not Applicable	more
V1420 — Door Intrusion 01 Component Damaged 1	8	Not Applicable	more
V1421 — Door Intrusion 01 Component Damaged 2	8	Not Applicable	more
V1422 — Door Intrusion 02 Component	88	Not Applicable	more
V1423 — Door Intrusion 02 Component Damaged 1	8	Not Applicable	more
V1424 — Door Intrusion 02 Component Damaged 2	8	Not Applicable	more
V1425 — Door Intrusion 03 Component	88	Not Applicable	more
V1426 — Door Intrusion 03 Component Damaged 1	8	Not Applicable	more
V1427 — Door Intrusion 03 Component Damaged 2	8	Not Applicable	more
V1428 — Door Intrusion 04 Component	88	Not Applicable	more
V1429 — Door Intrusion 04 Component Damaged 1	8	Not Applicable	more
V1430 — Door Intrusion 04 Component Damaged 2	8	Not Applicable	more

Case Vehicle

Airbag(s)

Variable Number and Name	Code Value	Code Description	Other Options
V1501 — Driver Airbag Equipped	1	Yes	more
V1502 — Driver Airbag Deployed	1	Yes	more
V1503 — Driver Airbag Condition	6	Other	more
V1504 — Passenger Airbag Equip	1	Yes	more
V1505 — Passenger Airbag Deployed	1	Yes	more
V1506 — Passenger Airbag Condition	0	No Damage	more
V1507 — Steering Wheel Airbag Tether	1	Yes	more
V1508 — Driver Airbag Marked By Contact	0	No	more
V1509 — Passenger Airbag Tether	0	No	more
V1510 — Passenger Airbag Marked By Contact	0	No	more

Case Vehicle

Interior

Variable Number and Name	Code Value	Code Description	Other Options
V1601 — Left Front Door Damaged	1	Yes	more
V1602 — Right Front Door Damaged	0	No	more
V1603 — Left Front Hardware Damaged	1	Yes	more
V1604 — Right Front Hardware Damaged	0	No	more
V1605 — Left Front Armrest Damaged	1	Yes	more
V1606 — Right Front Armrest Damaged	0	No	more
V1607 — Left Front Glass Damaged	1	Yes	more
V1608 — Right Front Glass Damaged	1	Yes	more
V1609 — Left Rear Door Area Damaged	1	Yes	more
V1610 — Right Rear Door Area Damaged	0	No	more
V1611 — Left Rear Hardware Damaged	1	Yes	more
V1612 — Right Rear Hardware Damaged	0	No	more
V1613 — Left Rear Armrest Damaged	1	Yes	more
V1614 — Right Rear Armrest Damaged	0	No	more
V1615 — Left Rear Glass Damaged	1	Yes	more
V1616 — Right Rear Glass Damaged	0	No	more
V1617 — Left Roof Side Rail Damaged	1	Yes	more
V1618 — Right Roof Side Rail Damaged	0	No	more
V1619 — Left B-pillar Damaged	8	Not applicable	more
V1620 — Right B-pillar Damaged	8	Not applicable	more
V1621 — Left C-pillar Damaged	1	Yes	more
V1622 — Right C-pillar Damaged	0	No	more
V1623 — Left D-pillar Damaged	8	Not applicable	more
V1624 — Right D-pillar Damaged	8	Not applicable	more
V1625 — Left Headlining Damaged	1	Yes	more

V1626 — Right Headlining Damaged	1	Yes	more
V1627 — Left Roof Structure Damaged	1	Yes	more
V1628 — Right Roof Structure Damaged	1	Yes	more
V1629 — Left T/Sun Roof Damaged	8	Not applicable	more
V1630 — Right T/Sun Roof Damaged	8	Not applicable	more
V1631 — Other Left Side Item Damagd	8	Not applicable	more
V1632 — Other Right Side Item Damagd	8	Not applicable	more
V1633 — Foot Controls Damaged	1	Yes	more
V1634 — Ignition Key Damaged	1	Yes	more
V1635 — Rear View Mirror Damaged	1	Yes	more
V1636 — Sunvisor/Fitting Damaged	0	No	more
V1637 — Windshield Molding Damaged	1	Yes	more
V1638 — Left A-pillar Damaged	1	Yes	more
V1639 — Right A-pillar Damaged	1	Yes	more
V1640 — Center Console Damaged	0	No	more
V1641 — Transmission Lever Damaged	1	Yes	more
V1642 — Horn/Spoke Shroud Damagd	4	Yes, occupant contact	more
V1643 — Upper Panel Damaged	1	Yes	more
V1644 — Mid Panel Damaged	4	Yes, occupant contact	more
V1645 — Lower Panel Damaged	4	Yes, occupant contact	more
V1646 — Ashtray Damaged	1	Yes	more
V1647 — Control Knob/Lever Damaged	1	Yes	more
V1648 — Glove Compartment Area Damaged	1	Yes	more
V1649 — Instruments Damaged	1	Yes	more
V1650 — Park Brake Release Damaged	1	Yes	more
V1651 — Park Brake Pedal Damaged	1	Yes	more
V1652 — A/C Or Upper Vent Damaged	1	Yes	more
V1653 — Heater Or A/C Duct Damaged	1	Yes	more

V1654 — Radio Damaged	1	Yes	more
V1655 — Other Item Damaged	8	Not applicable	more
V1656 — Rear Window Damaged	1	Yes	more
V1657 — Rear Window Header Damaged	0	No	more
V1658 — Vertical Console Damaged	8	Not applicable	more
V1659 — Roof Console Damaged	0	No	more

Case Vehicle

Seats

Variable Number and Name	Code Value	Code Description	Other Options
V1701 — Driver Front Seat Type	04	Split back - passenger wide	more
V1702 — Passenger Front Seat Type	04	Split back - passenger wide	more
V1703 — Driver Seat Mount Type	1	Standard	more
V1704 — Passenger Seat Mount Type	1	Standard	more
V1705 — Driver Swivel Mechanism Equipped	0	No	more
V1706 — Passenger Swivel Mechanism Equipped	0	No	more
V1707 — Driver Seat Original Equipment	1	Yes	more
V1708 — Passenger Seat Original Equipment	1	Yes	more
V1709 — Driver Seat/Rear Occupant Contact	8	Not applicable	more
V1710 — Passenger Seat/Rear Occupant Contact	8	Not applicable	more
V1711 — Driver Seat Damage	0	None	more
V1712 — Passenger Seat Damage	0	None	more
V1713 — Center Front Armrest Damaged	1	Yes	more
V1714 — Driver Seat Rotation	2	Rearward apparent	more
V1715 — Passenger Seat Rotation	0	None apparent	more
V1716 — Driver Seat-back Type	3	Reclining	more
V1717 — Passenger Seat-back Type	3	Reclining	more
V1718 — Driver Seat-back Lock Type	1	Manual	more
V1719 — Passenger Seat-back Lock Type	1	Manual	more
V1720 — Driver Seat-back Lock Held	1	Yes	more
V1721 — Passenger Seat-back Lock Held	1	Yes	more
V1722 — Driver Recliner Mechanism Held	1	Yes	more
V1723 — Passenger Recliner Mechanism Held	1	Yes	more
V1724 — Driver Head Restraint Type	2	Integral	more

V1725 — Passenger Head Restraint Type	2	Integral	more
V1726 — Driver Head Rest Removed	8	Not applicable	more
V1727 — Passenger Head Rest Removed	8	Not applicable	more
V1728 — Driver Head Rest Adjustment	8	Not applicable	more
V1729 — Passenger Head Rest Adjustment	8	Not applicable	more
V1730 — Driver Head Rest Damage	0	None	more
V1731 — Passenger Head Rest Damage	0	None	more
V1732 — Driver Seat Adjustment Type	1	Manual	more
V1733 — Passenger Seat Adjustment Type	1	Manual	more
V1734 — Driver Seat Adjustment Provided	1	2-way	more
V1735 — Passenger Seat Adjustment Provided	1	2-way	more
V1736 — Driver Seat Adjuster Damage	2	Deformed (released/jammed)	more
V1737 — Passenger Seat Adjuster Damage	2	Deformed (released/jammed)	more
V1738 — Driver Seat Adjuster Separation	0	None	more
V1739 — Passenger Seat Adjuster Separation	0	None	more
V1740 — Driver Seat Pre-crash Position	9	Unknown	more
V1741 — Passenger Seat Pre-crash Position	3	Rearward	more
V1742 — Left Rear Seat Type	2	Folding	more
V1743 — Right Rear Seat Type	2	Folding	more
V1744 — Left Rear Seat Damaged	0	None	more
V1745 — Right Rear Seat Damaged	2	Cushion only (damaged or loosened)	more
V1746 — Center Rear Armrest Damaged	8	Not applicable (No Center Armrest)	more
V1747 — Left Rear Seat-back Left Lock Equipped	1	Yes	more
V1748 — Right Rear Seat-back Left Lock Equipped	0	No	more
V1749 — Left Rear Seat-back Left Lock Held	0	No	more
V1750 — Right Rear Seat-back Left Lock Held	8	Not applicable	more
V1751 — Left Rear Seat-back Right Lock Equipped	0	No	more

V1752 — Right Rear Seat-back Right Lock Equipped	1	Yes	more
V1753 — Left Rear Seat-back Right Lock Held	8	Not applicable	more
V1754 — Right Rear Seat-back Right Lock Held	1	Yes	more
V1755 — Left 3rd Seat Equipped	0	No	more
V1756 — Right 3rd Seat Equipped	0	No	more
V1757 — Left 3rd Seat Backrest Damaged	8	Not applicable	more
V1758 — Right 3rd Seat Backrest Damaged	8	Not applicable	more
V1759 — Left 3rd Seat Cushion Damaged	8	Not applicable	more
V1760 — Right 3rd Seat Cushion Damaged	8	Not applicable	more
V1761 — Rear Head Restraints	0	Not Equipped (or removed)	more

MEASUREMENTS TO RECORD DAMAGE



Left front bumper
torn off, crumpled
1, 2 and 3 taken at
lower radiator support



Max. crush to
right rear cargo
panel



112

Width of
direct damage
to right side



Max. crush to left
lower radiator support



Bumper corner
template

Bumper corner
template

Left upper and lower
A-pillars, and left rear window
frame cut by rescue personnel

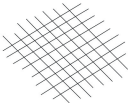


Bumper corner
template

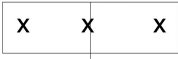
Bumper corner
template

Right upper A- and C-pillars cut
by rescue personnel

WINDSHIELD MARK ON CASE VEHICLE:



Windshield completely destroyed by pipes and rescue



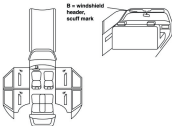
1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

Location of Intrusion	Intruded Component	(All Measurements Are in Centimeters)					Dominant Crush Direction
		Comparison Value	–	Intruded Value	=	Intrusion	
11	Toe pan - left	228	–	163	=	65	X
11	Knee bolster at center metal bar	178	–	122	=	56	X
11	Knee bolster at center plastic cover	163	–	124	=	39	X
11	Windshield header	138	–	98	=	40	X
11	Upper and mid Instrument panel	158	–	98	=	60	X
11	Knee bolster – left	165	–	110	=	55	X
11	Steering column	143	–	101	=	42	X
11	Knee bolster – right	165	–	126	=	39	X
11	Roof siderail	119	–	102	=	17	Z
11	Roof	133	–	102	=	31	Z
12	Instrument panel	163	–	126	=	37	X
13	Glove box area	163	–	151	=	12	X

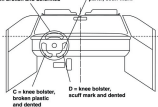
OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	Steering wheel	Dr	Head and chest	Rim broken and deformed	1
B	Windshield header	DR	Head	Scuff mark	2
C	Knee bolster	DR	Left leg	Broken plastic and dented	1
D	Knee bolster	DR	right leg	Scuff mark and dented	1
E	Mid instrument panel	DR	right leg	Scuff mark	1



A = steering wheel, rim broken and deformed

E = Mid instrument panel, scuff mark





Shaded Area



Notes: (1) 10
Type: (2) 10
at 10 and 11 of 100

Notes: (1) 10
Type: (2) 10

Passenger Airbag



Answer: ☐ ☒

If yes, how many? _____

Answer: ☐ ☒

If yes, how many? _____

Passenger Airbag/Seat

Single Seat



Case # 287: Occupant # 1; Injury # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	01	Injury #1	more
V2102 — 1st Prob Contact Area	10	Sunvisor, fitting(s) &/or top molding	more
V2103 — 2nd Prob Contact Area	12	Windshield	more
V2104 — Primary OIC -body Region	08	Head/skull	more
V2105 — Primary OIC -aspect	23	Whole region	more
V2106 — Primary OIC -lesion	11	Concussion	more
V2107 — Primary OIC -system/Organ	02	Brain	more
V2108 — Primary OIC -severity	3	Serious	more
V2109 — Primary OIC	HWKB3	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 2

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	02	Injury #2	more
V2102 — 1st Prob Contact Area	10	Sunvisor, fitting(s) &/or top molding	more
V2103 — 2nd Prob Contact Area	12	Windshield	more
V2104 — Primary OIC -body Region	06	Face	more
V2105 — Primary OIC -aspect	09	Inferior/lower	more
V2106 — Primary OIC -lesion	12	Laceration	more
V2107 — Primary OIC -system/Organ	09	Integumentary	more
V2108 — Primary OIC -severity	1	Minor	more
V2109 — Primary OIC	FILII1	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 3

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	03	Injury #3	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	13	Abdomen	more
V2105 — Primary OIC -aspect	18	Right	more
V2106 — Primary OIC -lesion	12	Laceration	more
V2107 — Primary OIC -system/Organ	12	Liver	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	MRL2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 4

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	04	Injury #4	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	13	Abdomen	more
V2105 — Primary OIC -aspect	12	Left	more
V2106 — Primary OIC -lesion	12	Laceration	more
V2107 — Primary OIC -system/Organ	17	Spleen	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	MLLQ2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 5

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	05	Injury #5	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	02	Back	more
V2105 — Primary OIC -aspect	19	Superior/upper	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	BSFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 6

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	06	Injury #6	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	02	Back	more
V2105 — Primary OIC -aspect	19	Superior/upper	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	BSFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 7

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	07	Injury #7	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	02	Back	more
V2105 — Primary OIC -aspect	19	Superior/upper	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	BSFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 8

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	08	Injury #8	more
V2102 — 1st Prob Contact Area	65	Steering wheel	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	02	Back	more
V2105 — Primary OIC -aspect	19	Superior/upper	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	BSFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury # 9

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	09	Injury #9	more
V2102 — 1st Prob Contact Area	72	Objects (penetrating)	more
V2103 — 2nd Prob Contact Area	55	Middle instrument panel	more
V2104 — Primary OIC -body Region	18	Forearm	more
V2105 — Primary OIC -aspect	12	Left	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	3	Serious	more
V2109 — Primary OIC	RLFS3	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury #10

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	10	Injury #10	more
V2102 — 1st Prob Contact Area	72	Objects (penetrating)	more
V2103 — 2nd Prob Contact Area	55	Middle instrument panel	more
V2104 — Primary OIC -body Region	18	Forearm	more
V2105 — Primary OIC -aspect	12	Left	more
V2106 — Primary OIC -lesion	22	Avulsion	more
V2107 — Primary OIC -system/Organ	09	Integumentary	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	RLVI 2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1; Injury #11

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	11	Injury #11	more
V2102 — 1st Prob Contact Area	99	Unknown area of contact	more
V2103 — 2nd Prob Contact Area	00	No Contact/not applicable	more
V2104 — Primary OIC -body Region	20	Thigh	more
V2105 — Primary OIC -aspect	12	Left	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	3	Serious	more
V2109 — Primary OIC	TLFS3	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 287: Occupant # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2001 — Occupant Number	01	Occupant #1	more
V2002 — Occupant Role At 1st Impact	1	Motor vehicle driver	more
V2003 — Occupant Position -row	1	1st row	more
V2004 — Occupant Position -lateral	1	Left	more
V2005 — Occupant Position -posture	10	Sitting on seat	more
V2006 — Occupant Age In Years	25	—	—
V2007 — Occupant Age In Months	25	25 months or older	more
V2008 — Occupant Mass	098 kg	—	—
V2009 — Occupant Height	180 cm	—	—
V2010 — Occupant Sex	1	Male	more
V2011 — Occupant Treatment/Mortality	04	Hospitalized over 24 hrs or for significant treatment	more
V2012 — Injury Severity Score	22	—	—
V2013 — Non-impact Med Condition	0	None	more
V2014 — Police Injury Severity	3	A - Incapacitating Injury	more
V2015 — Active Restraint System	3	Both lap belt and shoulder harness	more
V2016 — Active Restraint Usage	0	None (available but not used)	more
V2017 — Passive Restraint System	1	Air bag installed	more
V2018 — Passive Restraint Usage	2	Air bag deployed	more
V2019 — Child Seat Type	88	Not applicable (adult or older child)	more
V2020 — Occupant Ejection Degree	0	None	more
V2021 — Occupant Ejection Area	98	Not applicable (not ejected)	more
V2022 — Highest OIC Severity	3	Serious	more

V2023 — Head Restraint Available	1	Equipped	more
V2024 — Occupant Eyewear	0	None	more
V2025 — Source of Occupant Info	7	Combination of above	more









RAYLINER





















































































































